Claim Amendments

1. (currently amended) A system for improving a start time of a MEMS gyroscope, comprising in combination:

a MEMS gyroscope;

drive electronics connected to the MEMS gyroscope; and

a noise source ~~operable to inject narrowband~~ that injects bandwidth limited white noise into the drive electronics until the drive electronics locks onto a tuning fork frequency of at least one proof mass in the MEMS gyroscope.

2. (original) The system of Claim 1, wherein the MEMS gyroscope is a vibratory gyroscope.

3. (original) The system of Claim 1, wherein the MEMS gyroscope uses a Coriolis acceleration to detect rotation.

4. (currently amended) The system of Claim 1, wherein the drive electronics applies a drive voltage to at least one motor drive comb which causes the at least one proof mass to oscillate.

5. (canceled)

6. (original) The system of Claim 1, wherein the noise is injected into the drive electronics after applying a system power source to the MEMS gyroscope.

7. (original) The system of Claim 1, wherein the noise is injected into the drive electronics substantially before the MEMS gyroscope reaches full power.

8. (canceled)

9. (currently amended) The system of Claim 1, wherein [[a]] the tuning fork frequency of the at least one proof mass is located substantially within a bandwidth of the noise.

10. (original) The system of Claim 9, wherein the bandwidth of the noise is substantially centered at the tuning fork frequency of the at least one proof mass.

11. (original) The system of Claim 9, wherein the bandwidth of the noise is substantially +/- 1000 Hertz wide.

12. (currently amended) A system for improving a start time of a MEMS gyroscope, comprising in combination:

a vibratory gyroscope operable to use a Coriolis acceleration to detect rotation;

drive electronics operable to apply a drive voltage to at least one motor drive comb which causes at least one proof mass to oscillate, and wherein the drive electronics locks onto substantially a tuning fork frequency of the at least one proof mass; and

a noise source ~~operable to inject narrowband~~ that injects bandwidth limited white noise into the drive electronics until the drive electronics locks onto the tuning fork frequency of the at least

one proof mass, wherein a bandwidth of the ~~narrowband~~ noise is substantially centered at a tuning fork frequency of the at least one proof mass, and wherein the bandwidth of the ~~narrowband~~ noise is substantially +/- 1000 Hertz wide.

13. (original) The system of Claim 12, wherein the noise is injected into the drive electronics after applying a system power source to the tuning fork gyroscope.

14. (original) The system of Claim 12, wherein the noise is injected into the drive electronics substantially before the tuning fork gyroscope reaches full power.

15. (currently amended) A method for improving a start time of a MEMS gyroscope system, comprising injecting ~~narrowband~~ bandwidth limited white noise into drive electronics connected to a MEMS gyroscope until the drive electronics locks onto a tuning fork frequency of at least one proof mass in the MEMS gyroscope.

16. (original) The method of Claim 15, wherein the MEMS gyroscope is a vibratory gyroscope.

17. (original) The method of Claim 15, wherein the MEMS gyroscope uses a Coriolis acceleration to detect rotation.

18. (original) The method of Claim 15, wherein the noise is injected into the drive electronics after applying a system power source to the MEMS gyroscope.

19. (previously presented) The method of Claim 15, wherein the noise is injected into the drive electronics substantially before the MEMS gyroscope reaches full power.

20. (canceled)

21. (currently amended) The method of Claim 15, wherein a bandwidth of the noise is substantially centered at [[a]] the tuning fork frequency of the at least one proof mass.

22. (previously presented) The method of Claim 15, wherein a bandwidth of the noise is substantially +/- 1000 Hertz wide.

23. (currently amended) The method of Claim 15, wherein the drive electronics applies a drive voltage to at least one motor drive comb which causes the at least one proof mass to oscillate.

24. (canceled)